

Work Order ID 82710

82710

Page 1

April-05-12 11:19:07 AM

Item ID: D135-751-011

Accept

N9000040100

Setup Start

NS1

Revision ID:

Item Name: Skidtube Installation

Stop

NS2

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 17/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLS

Date: 12/04/05

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3492

C

D3507

Rev C

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D135-751-011

CHG001

Handwritten: J for MLS 12-5-8

Handwritten: 12-05-01

82710

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

0.00

120

Skidtubes

0.00

Skidtubes

Memo

1-Cut Aft end as per dwg D3507

2-Deburr ends

3-Drill Aft & Fwd Cap holes using DT8678 & DT8901

4-Locate DT8870 & Drill Ground wire hole on top of Tube.

6-Locate DT8870 with #30 cleco in Ground wire hole, then Pilot Drill all X-Bolt holes using #30" drill. ****DO NOT OPEN AFT CAP HOLES****

7-Open crossbolt holes to 0.3125" (3 per side). Drill pilot holes for wearplates using Dt8868, Use DT8892 FOR REAR WEARPLATE HOLES.

8-Open ~~all rear~~ wearplate holes using DT8892. Open holes to 0.297"

9-Open Aft & Fwd Cap holes using .208" drill.

10-Bore out aft end of tube as per Dwg D3507 & Detail "B".

11-Open ground wire hole .297" section E-E

12- Section G-G holes must be laid out manually, open to #30. --SAD 12-04-16

13-Deburr holes.

12-04-12

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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Page 3

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Item Name: Skidtube Installation

Start Date: 17/04/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 17/04/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.00

Quality Control

150

Chemical Conversion Coat per QSI005 4.1

0.00

150

HandFinish

Memo

0.00

Hand Finishing

160

QC7-Inspect Chemical Conversion Coat

0.00

160

QC

Memo

0.00

Quality Control

Skidtube

Skidtube

NG 12-4-19

1 Ø BE 12/04/19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Page 4

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Start Date: 17/04/2012 Start Qty: 1.00

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Required Date: 17/04/2012 Req'd Qty: 1.00

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Customer:

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

0.00

170

Skidtubes

0.00

Skidtubes

Memo

1-Open X-Bolt holes to .375"(2Places) & .500"(2Places) as per Dwg D3507.
and Detail "F"

2-Counter Sink X-BOLT holes as per Dwg D3507

3-Deburr and blow out chips from inside of tube.

4-Bond web as per Dwg D3507 & QSI 015

A/R 241 Sike Flex Batch: 121221Exp Date: 13/01/04start time: 10:00end time: 12/04/25

5-Weld x-bolt (D3504-1/-3) spacers as per Dwg D3507 and Detail C-C & D-D.

A/R AL ROD Batch: M120104

6-Grind welds flush

7-Drill Rivet Holes as per Dwg D3507 Using Dt8871A&B

8-Deburr Rivet holes.

DC 12/04/19

DC 12/04/23

BE 12/04/25

DC/CC 12-4-26

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Page 5

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Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start ***NR1***

QC: Date: SPC (Y/N): Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180 QC10- Inspect visual per QSI004- ground welds 0.00

180

QC Memo 0.00

Quality Control


1x  

190 0.00

190

Skidtubes Memo 0.00

Skidtubes 1-Rivet D3506-1/-3 as per Dwg D3507.

—  12-4-26

200 QC5- Inspect part completeness to step on W/O 0.00

200

QC Memo 0.00

Quality Control





W/O:		WORK ORDER CHANGES					
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Page 6

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Required Date: 17/04/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start *NR1*

QC: Date: SPC (Y/N): Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Pressure Wash per QSI005 4.3	0.00							
210									
HandFinish	Memo	0.00							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
220	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
220									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 7:30 OVEN TEMPERATURE: 320 FINISH TIME: 8:00	0.00							
230	QC3- Inspect Part Finish	0.00							
230									
QC	Memo	0.00							
Quality Control									

7/6 12-4-27

IX 12/04/30

1x 12/04/30

M121134

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Approvals: Process Plan: Date: Tooling: Date:

Run Start *NR1*

QC: Date: SPC (Y/N): Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

260

0.00

260

HandFinishing

HandFinish

Memo

0.00

Hand Finishing

1- Install Wearplate & Ground Wire inserts as per Dwg D3507.

1-Inspect for Foreign objects

2-Install Fwd & Aft caps as per Dwg D3507 And Detail "A" & "B"

A/R 241 Sika Flex Batch: 11121221
Exp Date: 13101

3-Install Wearplates as per Dwg D3507,

Note: Install (1) Bolt and (1) washer on Ground Wire insert on top of tube

Do not Install Scews where indicated on Dwg(Note #6)

A/R 241 Sika Flex Batch: 11121221
Exp Date: 13101

4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube

A/R 55-o'ring lube batch: 1110349

5- Wing Walk as per Dwg D3507 and QSI 005 4.4

Batch: 11121221

1 x 6 11 n105100

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Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

270

QC5- Inspect part completeness to step on W/O

0.00

270

QC

Memo

0.00

Quality Control

280

Pick Kit

0.00

280

Packaging

Memo

0.00

Packaging

290

QC4- 100% Inspect kits for completeness

0.00

290

QC

Memo

0.00

Quality Control

12.05.09

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Page 9

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Cust Item ID:

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Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start ***NR1***

QC: Date: SPC (Y/N): Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
300		0.00							
300	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D135-751-011								
	Location: <u>B</u>								
	PPP Rev: <u>B</u>								
310	QC21- Final Inspection - Work Order Release	0.00							
310									
QC	Memo	0.00							
Quality Control									

1x SP
12-5-9

12/5/10 JA
MCS 12/05/09

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Picklist Print

April-05-12 11:19:11 AM

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Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:A06-06-21New Issue JLM
 IPP Rev:B 06-12-18 As per Rev B JLM
 IPP Rev:C 07-12-11 ECN 1036 as per revB DD
 IPP Rev D 08.11.04 Added DT9431 to sequence 5 EC vcerified DD
 IPP Rev E 10.02.22 per pAR 09-043 EC verified by: DD IPP Rev:F
 10.06.09 remove seq110 DD verf:EC IPP Rev G 10.09.17
 added D3507-1-bent EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
ALS7-1032-130		Purchased	No				Each	318.0000		38			
AI S7-1032-130									**				
Insert													

ALS4-1032-130 / M120837

(38) 38 12/04/12

Location	Loc Qty	Loc Code
ST280	165	
117717	27	
118966	22	
119775	116	
ST282	153	
119530	73	
120181	80	

D3507-1-BENT

Manufactured No

120 Each 7.0000

1

D3507-1-BENT

Skidtube Assembly EC135

**

1 38 12/04-12

Location	Loc Qty	Loc Code
LG	7	
75264	2	
75265	2	
77441	1	
77443	2	

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D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3504-1 Manufactured No

170 Each 21.0000 2 2

D3504-1

Crossbolt Spacer

**

BE 12/04/25
B 82725 x2

Location Loc Qty Loc Code

LG001 21

53742 2

75240 19

D3504-3 Manufactured No

170 Each 11.0000 1 1

D3504-3

Crossbolt Spacer

**

BE 12/04/25
B 82726 x1

Location Loc Qty Loc Code

LG001 11

53743 11

D3504-5 Manufactured No

170 Each 15.0000 2 2

D3504-5

Crossbolt Spacer

**

BE 12/04/25

Location Loc Qty Loc Code

LG001 15

76239 15

D3505-1 Manufactured No

170 Each 3.0000 1 1

D3505-1

Web

**

De 12/04/23

Location Loc Qty Loc Code

LG 2

75256 2

LG001 1

75211 1

April-05-12 11:19:11 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
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D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3506-1 Manufactured No

190 Each 44.0000 4 4

D3506-1

Doubler

**

04/CC 12-4-26

Location

Loc Qty

Loc Code

ST051

44

74733

8

75090

36

D3506-3 Manufactured No

190 Each 57.0000 2

D3506-3

Doubler

**

04/CC 12-4-26

Location

Loc Qty

Loc Code

ST051

57

51790

57

MS20601-AD4W3 Purchased No

190 Each 2,172.000 12

MS20601-AD4W3

Rivet

**

04/CC 12-4-26

Location

Loc Qty

Loc Code

ST321

2172

114538

2172

April-05-12 11:19:11 AM

Shop Packet Print

Page 3

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D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

260

Each

2,469.000

1

1

AI S4-1032-225

Insert

Yl nlo 4/30

Location

Loc Qty

Loc Code

ST281

2446

108696

146

110768

62

118386

55

118966

68

120671

115

121269

2000

ST282

23

120410

10

120451

13

x1

AN3C4A

Purchased

No

260

Each

3,020.000

31

31

AN3C4A

BOLT

Yl nlo 4/30

Location

Loc Qty

Loc Code

ST350

3020

120187

1982

120769

38

121205

1000

x31

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D135-751-011

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C5A

Purchased

No

260

Each

1,600.000

2

2

AN3C5A

Bolt

**

12/04/30

Location

Loc Qty

Loc Code

FP001

7

121068

XZ

115835

7

ST350

1593

116419

28

117343

13

117764

7

117872

2

119749

23

120423

520

1210168

500

121255

500

AN526C1032R10

Purchased

No

260

Each

219.0000

2

2

AN526C1032R10

Screw

**

12/04/30

Location

Loc Qty

Loc Code

FP002

79

108062

79

XZ

ST348

140

110049

40

114494

100

AN960C10L

NAS1149C0332
R

Purchased

No

260

Each

0.0000

33

33

*AN960C10I *

washer

*

1121509

**

(X33) 12/04/30

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-05-12 11:19:11 AM

Page 6

Work Order ID: 82710

82710

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2965

Manufactured No

260

Each

59.0000

1

1

D2965

Cap, 105 Skidtube

**

u

12/04/30

Location

Loc Qty

Loc Code

FP002

59

71371

9

80089

50

X1

D2965-3

Manufactured No

260

Each

8.0000

1

1

D2965-3

Cap

**

u

12/04/30

Location

Loc Qty

Loc Code

FP002

8

50560

1

75254

7

X1

D3492-1

Manufactured No

260

Each

30.0000

4

4

D3492-1

Plug

**

u

12/04/30

Location

Loc Qty

Loc Code

FP002

30

69531

8

74444

2

76235

4

77037

16

1383098

X1

D3492-3

Manufactured No

260

Each

1.0000

4

4

D3492-3

Plug

**

u

12/04/30

Location

Loc Qty

Loc Code

FP-A

1

78600

1

1383099

X1

April-05-12 11:19:12 AM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-05-12 11:19:12 AM

Page 7

Work Order ID: 82710

82710

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3492-7

Manufactured No

260 Each

32.0000

2

2

D3492-7

Plug

**

12/04/30

Location

Loc Qty

Loc Code

FP002

32

71881

8

77222

24

12

D3508-1

Manufactured No

260 Each

11.0000

1

1

D3508-1

Wearplate

**

12/04/30

Location

Loc Qty

Loc Code

FP002

11

72933

11

11

D3508-3

Manufactured No

260 Each

12.0000

1

1

D3508-3

Wearplate

**

12/04/30

Location

Loc Qty

Loc Code

FP001

12

38527

1

81347

11

11

D3508-5

Manufactured No

260 Each

15.0000

1

1

D3508-5

Wearplate

**

12/04/30

Location

Loc Qty

Loc Code

FP001

15

71688

6

72416

9

11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-05-12 11:19:12 AM

Page 8

Work Order ID: 82710

82710

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3508-7

Manufactured No

260 Each

12.0000

1 1

D3508-7

Wearplate

**

12/04/30

Location

Loc Qty

Loc Code

FP001

12

76265

12

D3558-1

Manufactured No

260 Each

9.0000

1 1

D3558-1

Gasket

**

12/04/30

Location

Loc Qty

Loc Code

FP002

9

50925

1

73561

8

D3558-3

Manufactured No

260 Each

13.0000

1 1

D3558-3

Gasket

**

12/04/30

Location

Loc Qty

Loc Code

FP

12

82312

12

FP002

1

71651

1

D3558-5

Manufactured No

260 Each

11.0000

1 1

D3558-5

Gasket

**

12/04/30

Location

Loc Qty

Loc Code

FP002

11

75255

11

April-05-12 11:19:12 AM

Shop Packet Print

Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-05-12 11:19:12 AM

Work Order ID: 82710

82710

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3558-7 Manufactured No

260 Each

9.0000

1

1

D3558-7

**

YH 12/04/30

Gasket

Location

Loc Qty

Loc Code

FP002

9

75249

9

NAS1611-007

Purchased

No

260

Each

264.0000

2

2

NAS1611-007

**

YH 12/04/30

O-RING

Location

Loc Qty

Loc Code

FP001

264

103697

264

NAS1611-010

Purchased

No

260

Each

259.0000

4

4

NAS1611-010

**

YH 12/04/30

O-RING

Location

Loc Qty

Loc Code

FP

50

110915

0

120770

50

FP001

209

110915

14

117460

8

118077

1

118612

3

119438

47

120986

50

121166

36

121259

50

X4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-05-12 11:19:12 AM

Work Order ID: 82710

82710

Parent Item: D135-751-011

D135-751-011

Parent Item Name: Skidtube Installation

Start Date: 17/04/2012

Required Date: 17/04/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased

No

260

Each

250.0000

4

4

NAS1611-013

O-RING

**

12/05/30

Location

Loc Qty

Loc Code

FP001

250

116582

5

117291

2

117887

53

119623

36

120910

4

121166

100

121259

50

Purchased

No

280

Each

3,020.000

8

8

AN3C4A

AN3C4A

BOLT

**

Location

Loc Qty

Loc Code

ST350

3020

120187

1982

120769

38

121205

1000

Purchased

No

280

Each

0.0000

8

8

AN960C10L

***AN960C10I ***

washer

D3512-1

D3512-1

Wearplate

Manufactured

No

280

Each

5.0000

2

2

**

1121009

**

81352

Location

Loc Qty

Loc Code

ST500

5

74735

5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 82710

MLJ
12/04/05

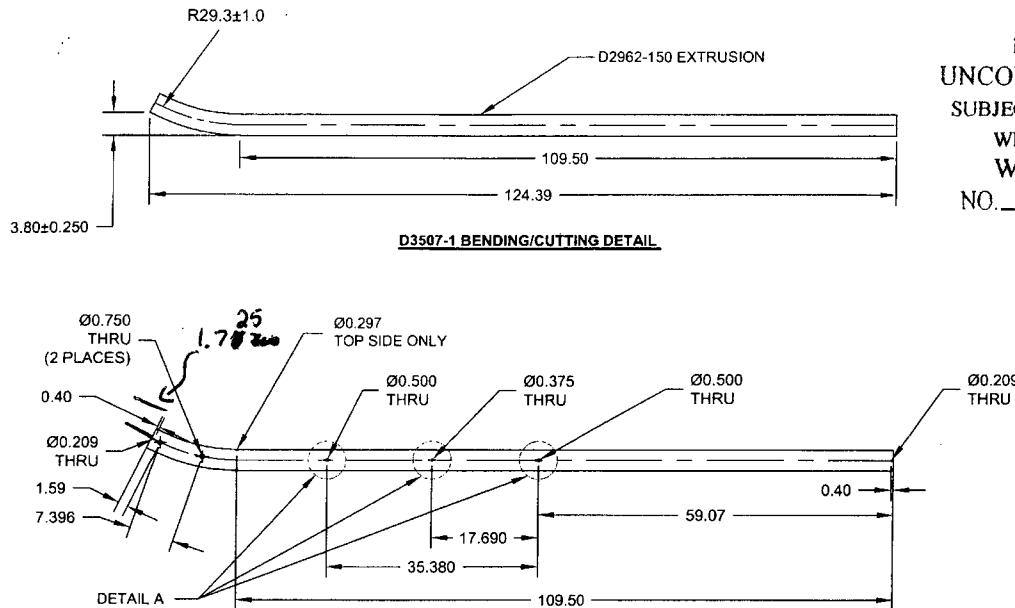
Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2965	CAP
1	D2965-3	CAP
4	D3492-041	PLUG ASSEMBLY
4	D3492-043	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
2	D3504-5	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3506-1	DOUBLER
2	D3506-3	DOUBLER
1	D3508-1	WEARPLATE
1	D3508-3	WEARPLATE
1	D3508-5	WEARPLATE
1	D3508-7	WEARPLATE
1	D3558-1	GASKET
1	D3558-3	GASKET
1	D3558-5	GASKET
1	D3558-7	GASKET
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
31	AN3C4A	BOLT
2	AN3C5A	BOLT
2	AN526C1032-10	SCREW
33	AN960C10L	WASHER
12	MS20601AD4W3	RIVET

GENERAL NOTES:

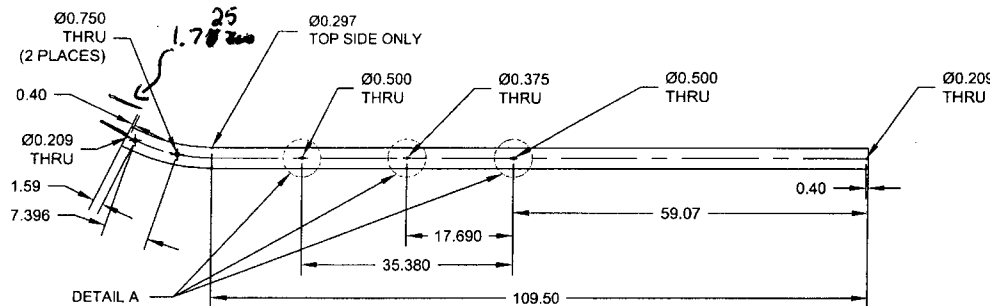
- FINISH:
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- DIMENSIONS: INCHES UNLESS OTHERWISE NOTED
- WELDING TO BE DONE PER DART QSI 004
- INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING
- USE DART DRILL TEMPLATE DT8868 TO LOCATE AND DRILL Ø0.297 HOLES (38 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS

C	ADD D3504-5, FOR SKID GEAR DEFLECTOR; CHANGE FWD CAP BOLT TO AN526C1032-10 SCREW	DC	07.09.19
B	ADD GASKET, CHANGE HARDWARE MAT'L	PH	06.11.01
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	JPC		
CHECKED	PH		
MFG. APPR.	PH		
APPROVED	PH		
DE APPR.	PH	DRAWING NO. REV. C D3507 SHEET 1 OF 2	
		TITLE SCALE EC 135 SKIDTUBE NTS	
DATE	07.09.19	COPYRIGHT © 2006 BY DART AEROSPACE USA, INC <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC</small>	

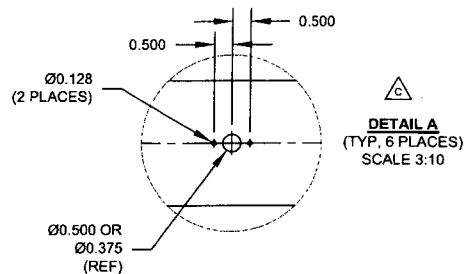
RELEASED
07.11.16.14



D3507-1 BENDING/CUTTING DETAIL



D3507-1 DRILLING DETAIL



DETAIL A
(TYP. 6 PLACES)
SCALE 3:10

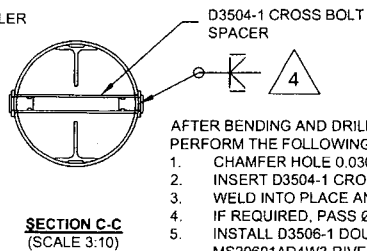
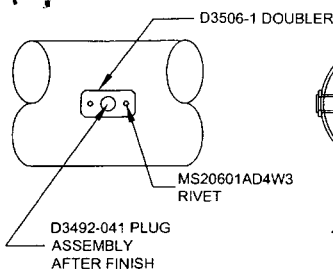
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

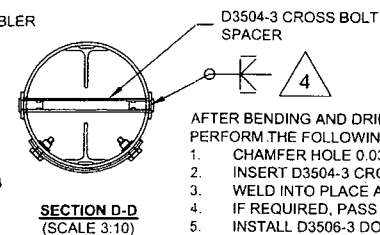
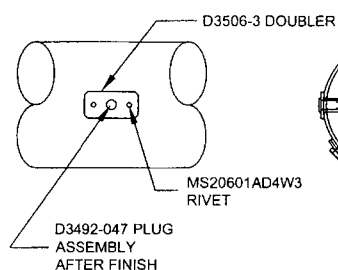
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



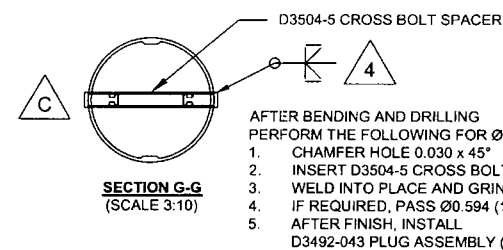
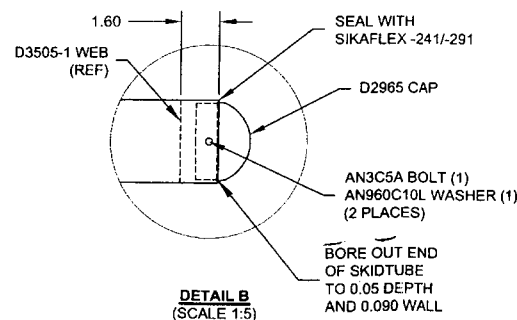
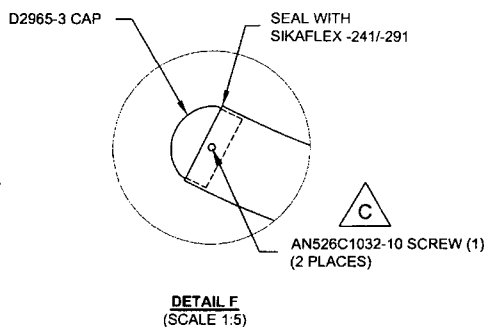
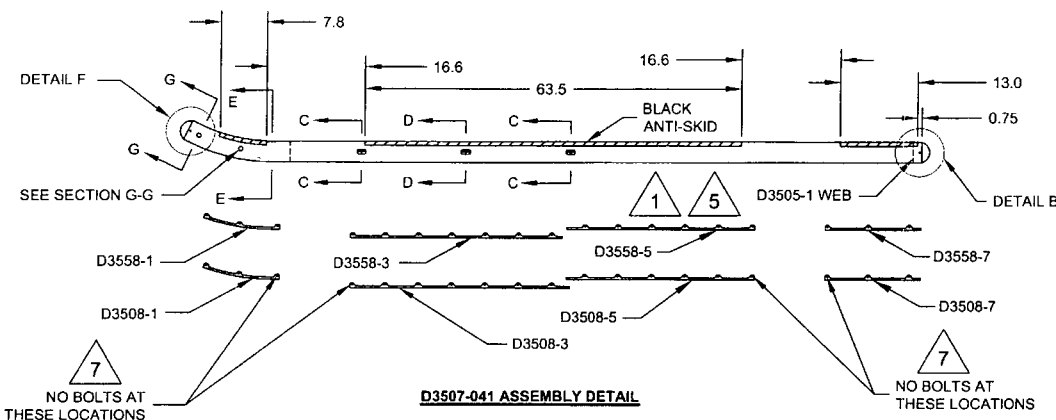
- AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.500 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-1 CROSS BOLT SPACER (2 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.404 ('Y' DRILL) THRU HOLE
 5. INSTALL D3506-1 DOUBLER (4 PLACES) USING MS20601AD4W3 RIVET (8 PLACES)
 6. AFTER FINISH, INSTALL D3492-041 PLUG ASSEMBLY (4 PLACES)

SECTION C-C
(SCALE 3:10)



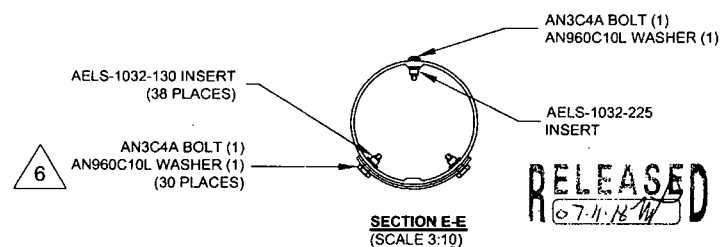
- AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.375 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-3 CROSS BOLT SPACER (1 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.277 ('J' DRILL) THRU HOLE
 5. INSTALL D3506-3 DOUBLER (2 PLACES) USING MS20601AD4W3 RIVET (4 PLACES)
 6. AFTER FINISH, INSTALL D3492-047 PLUG ASSEMBLY (2 PLACES)

SECTION D-D
(SCALE 3:10)



- AFTER BENDING AND DRILLING
PERFORM THE FOLLOWING FOR Ø0.750 HOLES ONLY:
1. CHAMFER HOLE 0.030 x 45°
 2. INSERT D3504-5 CROSS BOLT SPACER (2 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. IF REQUIRED, PASS Ø0.594 (19/32 DRILL) THRU HOLE
 5. AFTER FINISH, INSTALL D3492-043 PLUG ASSEMBLY (4 PLACES)

SECTION G-G
(SCALE 3:10)



DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED	BY	DRAWING NO.	REV. C
MFG. APPR.	C	D3507	SHEET 2 OF 2
APPROVED	140	TITLE	SCALE
DE APPR.	PH	EC 135 SKIDTUBE	1:20
DATE	07.09.19	COPYRIGHT © 2006 BY DART AEROSPACE USA, INC <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

RELEASED
07-11-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

5.0 PARTS LIST

Item	Qty -011	Qty -041	Qty -043	Qty -101	Part Number	Description
	X				D135-751-011	SKIDTUBE INSTALLATION
	1	X			D135-751-041	REPLACEMENT SKIDTUBE
			X		D135-751-043	WEARPLATE KIT
				X	D135-751-101	SKIDTUBE EXTENSION KIT
1		1			D3507-041	SKIDTUBE ASSEMBLY
2	4				**BRS8-96/48SZ-M8-W2	CLAMP
3	8				**LN9038-08032	SCREW
4		1			*D2965	CAP
5		1			*D2965-3	CAP
6		2			***AELS-1032-130	INSERT
7		2			***AELS-1032-225	INSERT
8		2			*AN3C5A	BOLT
9		2			*AN960C10L	WASHER
10		2			*AN526C1032-10	SCREW
20A		1	1		*D3508-1	WEARPLATE
20B		1	1		*D3558-1	GASKET
21A		1	1		*D3508-3	WEARPLATE
21B		1	1		*D3558-3	GASKET
22A		1	1		*D3508-5	WEARPLATE
22B		1	1		*D3558-5	GASKET
23A		1	1		*D3508-7	WEARPLATE
23B		1	1		*D3558-7	GASKET
24		38			*AELS-1032-130	INSERT
25	8	30	38		*AN3C4A	BOLT
26	8	30	38		*AN960C10L	WASHER
27	2		2		D3512-1	WEARPLATE
30		1			*AELS-1032-225	INSERT
31		1			*AN3C4A	BOLT
32		1			*AN960C10L	WASHER
40		4			*D3492-041	PLUG ASSEMBLY
41		4			***NAS1611-010	O-RING
42		2			*D3492-047	PLUG ASSEMBLY
43		2			***NAS1611-007	O-RING
44		4			*D3506-1	DOUBLER
45		8			*MS20601AD4W3	RIVET
46		2			*D3506-3	DOUBLER
47		4			*MS20601AD4W3	RIVET
48		4			*D3492-043	PLUG ASSEMBLY
49		4			***NAS1611-013	O-RING
50				1	D3510-041	INSERT ASSEMBLY
51				2	***AELS-1032-130	INSERT
52				6	***AELS-1032-225	INSERT
53				2	***ALS4-428-165	INSERT
54				2	AN4C7A	BOLT
55				2	AN960C416L	WASHER
56				2	AN3C4A	BOLT
57				8	AN3C7A	BOLT
58				10	AN960C10L	WASHER

* PART IS INCLUDED WITH D3507-041 SKIDTUBE ASSEMBLY

** TO BE SUPPLIED BY CUSTOMER, LISTED AS REFERENCE ONLY

*** DENOTES PART IS INCLUDED WITH ASSEMBLY ABOVE

NO. 247

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 66661
Part number: D135-751-011
Description: 135 skid truck
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[] fail[]

Qualifier Pat Jones Date of Test Coupon 11/03/17
Welder Barclay Elliot Date of Test Coupon 11/03/17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld